

Who Matters? The Perceived Motivational Climates Created by Coaches, Peers, and Team  
Captains and the Effect on Trait Self-Confidence and Enjoyment in High School & College  
Athletics

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## **Abstract**

Sport is a source of overall well-being in young individuals with regards to health, learning to cooperate, and having fun among other areas. However, the degree to which young athletes are motivated to perform varies greatly based on a number of factors. This study focused on the influence that significant others in the athletes' lives had on their motivation levels while in sport. Specifically, the study looked at which motivational climate created, coaches, peers, or team captains, had the most significant influence on high school and collegiate athletes. The focus was on the motivational climate's impact on enjoyment, self-confidence, and resiliency factors when participating in sport. Ninety-five high school and college athletes, ages 13-22, from a high school and college in the Western New York region of the United States completed measures to determine how their enjoyment, self-confidence, and resiliency factors are influenced by the motivational climate created by the aforementioned significant others. The results showed that the most significant predictive relationship was between team captain master climates and enjoyment levels of athletic participation. Future research should be directed at the team captain approach to see if these results can be replicated. These results suggest that team captains, a group that has received little to no attention in the past, can have a significant impact on the sport experience.

**Keywords:** Athletes, Motivation, Mastery Climate, Performance Climate

## **Introduction**

Sport is an important part of modern American society, with tens of millions of people competing at the high school and college levels. There are a variety of ways that sports contribute to the development and well-being of adolescent athletes. Sports can teach young athletes how to regulate their emotions, can help them develop relationships with those around them, and positively impact their self-esteem, or how they feel about and see themselves (Curran, Hill, Hall, & Jowett, 2015). In addition, it is believed that adolescents participate in sport for reasons such as being affiliated with a team and its members and to enhance the relationships that they have with their peers (Vazou, Ntoumanis, & Duda, 2006). There are an abundance of reasons that high school and college athletes participate in sport, but the focus should be on how they feel once they are involved in their sport. Unfortunately, 50% of the high school students in the United States still do not participate or play sport in school and overall sport participation declines during the adolescent years of life, females especially (Weiss, Amorose, & Wilko, 2009).

The motivational climate created by significant others is an area of concern when it comes to how young athletes feel about their sport experience. Keegan, Harwood, Spray, and Lavallee define motivational climate as the, “motivational influence exerted by key social agents” (2009, p. 362 & 2014, p. 97). The motivational influence can come from many important significant others, ranging from coaches and peers to team captains. The motivational climate created by others can be perceived in two main ways: mastery motivational climate and performance motivational climate. Mastery climates are generally known as having a more positive impact on the sport experience in athletes.

Mastery motivational climates are characterized by effort being central to success, using mistakes as a learning tool, actually demonstrating mastery of the task at hand, and overall participation (Kavussanu & Roberts, 1996; Ntoumanis, Vazou, & Duda, 2007; Pensgaard & Roberts, 2000). Mastery climates are also related to an athlete choosing adaptive opposed to maladaptive achievement strategies, believing more in the purpose of playing the sport, and higher feelings of overall ability (Treasure, 2001). On the other end of the spectrum, performance climates can have a positive impact on sport experience in certain situations, but they are generally more negative in nature. Performance motivational climates are characterized by competition between teammates, normative feedback, evaluation in the public eye, and social comparison being central to how success and ability are determined (Kavussanu & Roberts, 1996; Ntoumanis, Vazou, & Duda, 2007; Pensgaard & Roberts, 2000). In other words, success and ability are self-referenced within a mastery climate and normative or involve social comparison within a performance climate.

### **Purpose of the Study**

As previously mentioned, the motivational climate perceived by athletes can have a critical impact on their experience in sport. It is generally accepted that a climate that is more mastery in nature will enhance the sporting experience, where as a climate shifted towards performance in nature can diminish the purpose of the experience in sport. Therefore, this study is not looking to determine whether a perceived mastery climate is better or a perceived performance climate is worse for adolescent athletes in sports. Rather, the purpose of this study is to examine the influence that the perceived motivational climate created by significant others (coaches, peers, and team captains) has

on adolescent athletes at the high school level, as well as athletes at the college level. Team captains is the group of particular importance for studying because they have not been examined through past research. The goal is to determine which group has the most significant impact on high school and college athletes in regard to the trait self-confidence that they have and how much they enjoy sports during their participation. By doing this, the study aims to enhance knowledge about the role significant others play due to the motivational climate they create and therefore improve the sport experience for future athletes.

### **Significance of the Study**

High school and college athletics serve as a way for adolescents to escape the stress of everyday life and participate in a sport that they love and can express themselves in. However, the role that coaches, peers, and team captains play through the motivational climate that they create can play a role in how worthwhile the sport experience actually is. Coaches play a crucial role in the sport experience by impacting the motivation levels of their athletes, which is important because motivation is crucial for participation not only in the present, but the future as well (Conroy, Kaye, & Coatsworth, 2006). The impact of the motivational climate created by coaches has been well looked at in the past, but it remains critical to study their role because they have quite often the most influence on the sport experience for younger athletes.

Peers can also play a critical role in the sport experience of athletes, especially at the high school and college levels. However, there is a lack of research conducted on the peer-created motivational climate's role in youth sport (Joesaar, Hein, & Hagger, 2012). In addition, it is only recent that peer-created climates have been studied and viewed as

important in the sport experience, meaning there are gaps that remain to be filled (Vazou et al., 2006). The largest gap in research is in regards to team captains. There has been no research conducted on the role team captains have through the motivational climate they create, making this a significant area of research for this study. The main significance of the study lies in determining which of these three groups has the most influence on the trait self-confidence and enjoyment displayed in high school and college athletes.

## **Hypotheses**

The aim of this study is to determine whether coaches, peers, or team captains have the most significant impact on trait self-confidence and enjoyment through the motivational climate that they create. It is hypothesized that peers will have the most significant impact on trait self-confidence and enjoyment in high school and college athletes through the motivational climates they create. A mastery peer climate specifically is expected to positively influence trait self-confidence and enjoyment in athletic participation. Coaches, as well as team captains, are expected to have a similar impact on trait self-confidence and enjoyment in sport participation to a less significant extent than peers. Peers would play a major role, especially at the high school level, because athletes are always looking to impress and show off to friends and teammates at this age (Keegan et al., 2009 & 2014).

The college level would not be expected to be much different because peers are the people that college-aged athletes are interacting with the most at this point. At this point of athletic participation, it is expected that the motivational climate created by coaches will have the least impact on trait self-confidence and enjoyment. The motivational climate created by team captains and peers, a mastery climate especially, is

expected to have the most significant positive relationship with trait self-confidence and enjoyment levels in college athletes. However, the peer mastery motivational climate is expected to have the most significant impact overall on college athletes due to the interaction with a greater amount of peers on a daily basis. A mastery climate would be positively correlated with trait self-confidence and enjoyment. A performance climate would be negatively correlated with trait self-confidence and enjoyment.

## **Review of Literature**

### **Coach-Created Motivational Climate**

Coaches are quite often the most involved and therefore, the most influential individual on the experiences in sport of young athletes. The coach's impact can have varying results depending on whether they are perceived to create a mastery climate or a performance climate. There are many positives associated with a coach that creates a mastery motivational climate. A perceived mastery climate has ties with higher levels of intrinsic motivation, which corresponds with higher amounts of effort, more enjoyment in the sport, and a greater amount of satisfaction from the sport experience (Weigand, Carr, Petherick, & Taylor, 2001). A coach that promotes a mastery climate also enjoys, encourages, and emphasizes effort, cooperation among teammates, learning from mistakes that have been made or from past performances, and improvement upon the athletes' skills and performance (Curran et al., 2015). The type of feedback received in a more mastery climate can have positive impacts as well. Weise et al. (2009) studied the effects of the types of feedback on the sport experience in female adolescent soccer players and found that more positive feedback, combined with a mastery climate, led to positive characteristics in the players, such as higher feelings of competence, more

enjoyment, and greater intrinsic motivation towards the sport of soccer. Similar results were found in a study of female high school basketball players by Smith, Fry, Ethington, and Li (2005). Overall, the trend tends to be that a coach that creates a more mastery climate is seen as the “ideal” coach for young athletes (Olympiou, Jowett, & Duda, 2008).

Staying with the coach-created motivational climate, a performance climate tends to be associated more with negative aspects of a sport experience. A performance climate emphasizes competition between teammates, comparison of ability and performance with others, and evaluation of performance in the public context (Curran et al., 2015). According to Weigand et al. (2001), a coach-created performance climate can lead to athletes feeling pressure and tension to perform well during their sport experience. In the aforementioned study conducted by Weise et al. (2009), coaches that provided more negative feedback or criticism, combined with a performance climate, had female soccer players with lower levels of perceived confidence, who enjoyed playing the sport of soccer less, and were less likely to be intrinsically motivated to play soccer. A performance climate created by coaches can also negatively impact athletes by leading to higher levels of perfectionistic cognitions, which can lead to pressure and stress to try to perform well (Appleton, Hall, & Hill, 2011). Overall, the consensus seems to be that coach-created mastery climates are preferred over performance climates.

### **Peer-Created Motivational Climate**

At any level of athletic participation, peers can have an influence. This can include participation in sport at the more competitive high school or collegiate level of athletics, as well as the casual participation in sport at the recreational or exercise level of

sport. Murcia, de San Roman, Galindo, Alonso, and Gonzalez-Cutre (2008) found that even in exercise groups, peers can have an impact by encouraging effort and improvement, which can lead to higher levels of enjoyment in the exercise being performed (in mastery climates). Similar to coaches, peers that foster a more mastery climate tend to have a more positive impact on other athletes (Keegan et al., 2014; Ntoumanis et al., 2007; & Vazou et al., 2006). A mastery or task climate created by peers is correlated with a higher feeling of self-esteem, greater feelings of enjoyment, a greater chance of sport participation in the future, and lower levels of competitive trait anxiety (Ntoumanis et al., 2007). In fact, the peer created motivational climate has a greater impact on enjoyment in sport than the coach created climate (Vazou et al., 2006). In addition, mastery peer climates are also associated with higher levels of self-worth and greater amounts of effort exerted during participation (Vazou et al., 2006). Keegan et al. (2014) also discovered that once athletes hit an elite level or older age, peers tend to replace the roles held by parents at the younger ages and played a role in feelings of belonging to the group through the type of motivational climate that they create.

A performance climate created by peers can have detrimental effects to an athlete's sport experience. Ntoumanis et al. (2007) found that a perceived performance or ego climate created by peers was associated with feelings of pressure to perform, which led to greater competitive state anxiety. The pressure that is created also leads to less enjoyment, lower feelings of self-esteem if performance is negative, and less of a chance to stay committed to the sport that they are currently involved in (Ntoumanis et al., 2007). Vazou et al. (2006) have findings that support the results of Ntoumanis et al. (2007) because they discovered that the peer created climate was the only predictor of

levels of competitive trait anxiety in their study. The general consensus is that a mastery climate created by peers will have more positive impacts on athletes in sport than a performance climate.

### **Team Captain-Created Climate**

As of now, there has been no research conducted on the motivational climate created by team captains. This is a critical gap in research because many teams at the high school and college levels have team captains. In addition, these team captains can have a greater impact on the team than even the coaches. Without research on team captains, it could be said that the information in regards to motivational climates created by significant others is not complete. For this reason, the study will aim to fill this gap that currently exists in research on motivational climates.

### **Self-Confidence**

Self-confidence is a critical aspect of an athlete when it comes to participation in sport. Curran et al. (2015) found through studying 260 adolescent soccer players that a mastery coach-created climate is positively associated with higher levels of self-confidence in athletes. At the same time, their study also produced results showing that higher levels of self-confidence were also found in association with performance coach-created climates (Curran et al., 2015). Kavussanu and Roberts (1996) conducted a study on 285 college students that were enrolled in tennis classes at the school. They found that women in the classes had higher levels of self-efficacy or confidence when the climate focused on improvement and learning (characteristics of a mastery climate), but men actually had higher levels of self-efficacy in performance climates. Based on these

two studies, it might be necessary to conduct further research on the role motivational climates play in self-confidence of athletes.

## **Enjoyment**

Enjoyment of the sport and participation in it may be one of the most critical reasons for athletes to continue to participate in the future. Overall, research has supported the idea that athletes will enjoy sports more if a mastery climate is created by significant others and enjoy sports less if a performance climate is created by significant others. Weiss et al. (2009) found that mastery climates created by coaches were positively correlated with higher levels of enjoyment, and performance climates were negatively associated with higher levels of enjoyment in female adolescent soccer players. Vazou et al. (2006) discovered similar findings across a variety of sports for young athletes in regards to enjoyment, discovering that both coach and peer-created mastery climates were positively associated with enjoyment. Ntoumanis et al. (2007) also discovered that enjoyment is positively correlated with a mastery peer-created climate. An athlete that is higher in task-orientation, which generally corresponds with mastery climates, are found to have greater enjoyment in their sport as well (Roberts, 2001). Based on research already conducted, similar findings should be expected in regards to enjoyment for this study.

## **Methods**

The purpose of this study was to determine which group, coaches, peers, or team captains, has the most significant impact on high school and college athletes through the motivational climate that they create. Specifically, their impact was looked at in regard

to the trait self-confidence and enjoyment displayed by these athletes. The athletes only participated in the study if they received parental permission and gave consent themselves that they were willing to and understood the purpose of the research at hand. The athletes were at minimal risk to any harm through this study. The only harm might have been questions in the surveys that they felt were embarrassing to answer. For those reasons, the athletes were away from other team members and coaches when filling out the survey, and they could skip any question that they felt uncomfortable answering. The athletes filled out the surveys approximately 75% into their season to allow for the motivational climate to develop (Fry & Newton, 2003). The athletes answered approximately 100 questions from a variety of questionnaires and scales. These instruments will be discussed in the next sections. A description of the participants and research instruments used in this study are discussed in the following sections.

## **Measures**

### *Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2).*

The Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2) (Newton, Duda, & Yin, 2000) was used to measure the athletes' perception of the team motivational climate to be more mastery or performance oriented. The scale had 33 total items broken into two subscales: mastery climate (17 items) and performance climate (16 items). An example of a question on the mastery subscale would be, "On this team, the coach wants us to try new skills." An example of a question on the performance subscale would be, "On this team, the coach gets mad when a player makes a mistake." The rest of the questions on this scale will be found below (questions 1-33). Participants answered the questions using a Likert-type scale from 1 (strongly disagree) to 5 (strongly

agree). The PMCSQ-2 (Newton et al., 2000) has been found to be internally valid and reliable for use in research (Newton et al., 2000). For the purpose of this study, 14 questions (questions 34-47) from the PMCSQ-2 (Newton et al., 2000) were also adapted to conduct research on the motivational climate created by team captains.

*Peer Motivational Climate in Youth Sport Questionnaire (PeerMCYSQ)*

The Peer Motivational Climate in Youth Sport Questionnaire (PeerMCYSQ) (Ntoumanis & Vazou, 2005) was used to measure the athletes' perception of the motivational climate created by their peers. The scale had 21 total items broken into five subscales: Improvement (4 items), Relatedness Support (3 items), Effort (5 items), Intra-Team Competition/Ability (5 items), and Intra-Team Conflict (4 items). Examples of questions included: "On this team, most athletes help each other improve (improvement)"; "On this team, most athletes care about everyone's opinion (relatedness support)"; "On this team, most athletes encourage their teammates to keep trying after they make a mistake (effort)"; "On this team, most athletes look pleased when they do better than their teammates (Intra-Team Competition/Ability)"; and "On this team, most athletes laugh at their teammates when they make mistakes (Intra-Team Conflict)." The rest of the questions on this scale will be found below (questions 48-68). Participants answered the questions using a Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). The PeerMCYSQ (Ntoumanis & Vazou, 2005) has been found to be valid and reliable for conducting research on peer motivational climates (Ntoumanis & Vazou, 2005).

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### *Interest-Enjoyment Subscale*

The Interest-Enjoyment Subscale of the Intrinsic Motivation Inventory (McAuley, Duncan, & Tammen, 1989) was used to measure how much the athletes' enjoyed participation in their current sport. The scale had 7 total items with two of the items being reverse scored. Examples of questions included: "This activity was fun to do" and "I thought this was a boring activity (reverse scored)." The rest of the questions on this scale will be found below (questions 69-75). Participants answered the questions using a Likert-type scale from 1 (not at all true) to 7 (very true). The Interest-Enjoyment subscale (McAuley et al., 1989) has been found to be valid and reliable for conducting research on enjoyment in sports. (McAuley et al., 1989).

### *Trait Sport-Confidence Inventory*

The Trait Sport-Confidence Inventory (Vealey, 1986) measured the trait self-confidence of the athletes in their current sport. The scale had 13 total items used for research. An example of a question used in the study is: "Rate your confidence in your ability to perform under pressure." The rest of the questions on this scale will be found below (questions 76-88). Participants answered the questions using a Likert-type scale from 1 (low) to 9 (high). The Trait Sport-Confidence Inventory (Vealey, 1986) has been found to be valid and reliable for conducting research on trait self-confidence in sports (Vealey, 1986).

### **Participants**

The participants in this study were 95 student-athletes competing at the collegiate ( $n = 50$ ) and high school ( $n = 45$ ) levels in Western New York State in the United States

of America. Males comprised 29.5% of the sample ( $n= 28$ ), while females comprised 70.5% of the sample ( $n= 67$ ). Racial and ethnic make-up of the participants was mostly White (86.3%,  $n= 82$ ) and Non-Hispanic Latino (76.8%,  $n= 73$ ), which is consistent with the demographics of the region. Average age of the participants was 17.85 years ( $std= 2.61$ ) and average time playing their sports was 5.23 years ( $std= 3.68$ ). The majority of the participants were starting athletes on their respective teams (76.8%,  $n= 73$ ). All participants were competing in spring sports and played the following sports: baseball, golf, lacrosse, soccer, softball, tennis, and track and field.

## Results

The correlations for all major variables in the study are displayed in Table 1. Since enjoyment and trait self-confidence are the dependent variables of interest for this study, the last two rows of the table display the relationship these variables have with the climate variables. Trait self-confidence shares moderate relationships with coach mastery climate and peer task motivational climate. Enjoyment shares strong, moderate relationships with coach mastery and team captain mastery climates, while coach performance climate has a strong, moderate negative relationship.

In order to understand what climate is most impactful in an athlete's trait self-confidence and enjoyment, two linear regressions using an enter method were conducted on the main climate scales (coach created mastery and performance climates, peer created task and ego climates, and team captain created mastery and performance climates) as independent variables and trait self-confidence and enjoyment were entered as dependent variables.

For the first regression, predicting trait self-confidence, the regression equation was not significant  $F(6, 83) = 1.411, p = .220$ . The motivational climate created by coaches, peers, or team captains did not significantly explain one's trait self-confidence.

For the second regression, predicting enjoyment of sport, the regression equation was significant  $F(6, 83) = 3.924, p = .002; R^2 = .221$ . The regression beta weights are displayed in Table 2. The only significant predictor was Team Captain Mastery Climate  $b(83) = .43, p = .04$ . Coach Mastery Climate was approaching significance  $b(83) = .58, p = .068$ , but it was not statistically significant. It appears from this regression that team captains valuing effort and mastery of skills is the biggest predictor of sport enjoyment (22.1% of enjoyment).

**Table 1:** Correlations amongst all study variables

	1	2	3	4	5	6	7	8
1. Coach Mastery Climate	-----							
2. Coach Performance Climate	-.48**	-----						
3. Peer Task Motivational Climate	.59**	-.13	-----					
4. Peer Ego Motivational Climate	-.17	.29**	-.46**	-----				
5. Team Captain Performance Climate	-.21*	-.00	-.61**	.60**	-----			
6. Team Captain Mastery Climate	.58**	-.10	.70**	-.24*	-.35**	-----		
7. Trait Self-Confidence	.25*	-.10	.21*	-.06	-.16	.13	-----	
8. Enjoyment of Sport	.38**	-.30**	.11	.02	.04	.28**	.093	-----

Note: \*correlation is significant at the .05 level. \*\* Correlation is significant at the .001 level.

**Table 2:** Unstandardized Beta Weights and Significance for the Enjoyment of Sport Regression

	Unstandardized Beta	t-value	Significance
Constant	3.697	2.352	.021
Coach Mastery Climate	.576	1.848	.068
Coach Performance Climate	-.306	-1.464	.147
Peer Task Climate	-.298	-1.330	.187
Peer Ego Climate	.093	.578	.565
Team Captain Performance Climate	.017	.082	.935
Team Captain Mastery Climate	.434	2.055	.043

## Discussion

The purpose of this study was to examine the impact of motivational climates, mastery or performance, created within the high school and college sport context can have on athletes. One specific focus of this study was to examine if one group in particular had a greater impact on the areas of trait self-confidence and enjoyment based on the motivational climate that they created. In addition, another specific area of focus was to examine a particular group that has received no attention from research in the past, team captains. It has largely been accepted in the past, as evident through copious amounts of research, that mastery-based motivational climates play a greater role as a beneficiary than performance-based motivational climates. Pensgaard & Roberts (2000) found that performance motivational climates were associated with distress in the

coaches and the team, opposed to a mastery motivational climate, where distress was significantly low. Vazou et al. (2006) found that coach and peer-created mastery motivational climates were related to greater self-worth, enjoyment, and effort in high school aged athletes, while the same study showed that coach-created performance motivational climates were related to performance anxiety by athletes. At the high school and college levels of athletics in particular, it is worth considering the role that the team captains and leaders can play in the functioning of the team.

The initial hypotheses stated were that the peer-created motivational climate would have the most significant impact on trait self-confidence and enjoyment for athletes at these levels; mastery motivational climates as a whole would be positively correlated with trait self-confidence and enjoyment; and performance motivational climates as a whole would be negatively correlated with trait self-confidence and enjoyment. Overall, these hypotheses were not supported by the results. The general results showed that the only significant relationship existed between team-captain mastery motivational climates and enjoyment of athletic participation. Other results were approaching significance, but there were limitations discussed later that might have contributed to this. Despite the lack of significance within most areas, this does not mean that coaches and peers don't play some role in trait self-confidence and enjoyment in athletes; rather they played a smaller role, less significant role on this group of athletes than team captains. Overall, the results imply that team captain motivational climates is an area worth further consideration to see if findings are consistent with what is found within this research.

As a whole, correlations between variables in the study went as expected to some extent. Moderate relationships were displayed between trait self-confidence and coach mastery climates, as well as peer-created task motivational climates. The studies by Currant et al. (2015) and

Kavussanu & Roberts (1996) had previously shown mixed results about the role that motivational climates could play in regard to self-confidence. Specifically, it was shown that both mastery and performance-based motivational climates created by coaches displayed a positive relationship with self-confidence (Currant et al. 2015). In addition, mastery climates were shown overall to be more beneficial for supporting confidence for students taking sport classes (Kavussanu & Roberts 1996). The correlation in this research demonstrated that there was a slightly positive moderate relationship between trait self-confidence and coach mastery climates & trait self-confidence and peer task motivational climates. The results thus could be said to be supported by past research to some level. Past research has primarily focused on coach-created mastery motivational climates and trait self-confidence, so the finding of a correlation between peer task motivational climates and trait self-confidence was a finding that can be used as a starting point for future research.

In regard to enjoyment, strong, positive moderate correlations were demonstrated between enjoyment and coach mastery motivational climates, as well as between enjoyment and team captain mastery motivational climates. In addition, there was a strong, negative moderate relationship between enjoyment and coach performance motivational climates. There have been widespread findings from past research that support positive relationships existing between enjoyment and mastery motivational climates overall. The study by Vazou (2006) was able to demonstrate that both coach-created motivational climates and peer-created motivational climates of the mastery kind demonstrated strong positive relationships with enjoyment levels of athletes, opposed to more performance-based motivational climates, which was affiliated with higher anxiety levels in athletes. However, other studies have demonstrated slightly different results. In particular, the study by Ntoumanis & Biddle (1999) demonstrated that the highest

enjoyment levels for students in physical education classes was when there were elements of both mastery and performance-based motivational climates present. Overall, this demonstrates that results continue to vary in different contexts and studies. The results from this research supports aspects of past studies, but it is evident through past and present research that more research needs to be conducted before significant conclusions can be drawn.

As mentioned earlier, two separate linear regressions were used to analyze the data from the research that was conducted. The first linear regression examined the relationship between trait self-confidence and the motivational climate created by coaches, peers, and team captains. This analysis specifically did not produce any major results, as the motivational climates created by coaches, peers, and team captains didn't explain significant athletes' trait self-confidence. Based on the results from past research, this result was unexpected from the study that was currently conducted. There was an expectation that the results of this study would further support past research on the area of self-confidence and motivational climates. In particular, it was expected that a mastery-based motivational climate would be superior to performance-based motivational climates for athletes' trait self-confidence at this level. Coaches are expected to play a role at these levels because they are the individuals providing the most structured feedback on a daily basis and interacting with athletes on various levels. It is also important overall for coaches to understand their team and what will allow them to effectively perform. For example, adolescent athletes were said to prefer a coach that implemented a structured practice plan; has the ability to demonstrate and perform the skills of the sport; and give the athletes the chance to compete at a high level in practices and games, which consequently allows them to pursue their goals (Martin, Dale & Jackson, 2001). Based on the preferences that

athletes have for their coaches, it was unexpected that there was no significant relationship between coaching motivational climates and self-confidence.

It was also unexpected that no significant results were produced from this research in regard to peer created motivational climates and self-confidence. Athletes at this level can be extremely vulnerable to the influence of their peers, even more so than from the influence of their coaches. To reiterate what Keegan et al. (2009 & 2014) mentioned, athletes at this level are often trying to impress their friends, so it was expected to some extent that what their friends said would influence the confidence level of high school and college level athletes. The influence doesn't have to just be from peers on the team either, for it seems that friends outside of the team can have just as much, if not more of an impact, on the way that adolescent aged athletes think and perform athletically. The lack of significant results goes against results from past research that has shown peer-created motivational climates to play an important role in self-confidence.

The second regression analysis examined the relationship between enjoyment in sports and coach, peer & team captain-created motivational climates. A coaching mastery climate was approaching significance, but it did not reach statistical significance. It was not surprising that a coaching mastery motivational climate approached significance with this research. There have been numerous studies that have supported the idea that a mastery motivational climate overall can have a significant impact on enjoyment levels in athletes. For example, a study by Goudas (1998) on youth basketball players in Greece found that enjoyment levels of these athletes was the greatest when a high mastery-low performance motivational climate was present, opposed to the lowest levels of enjoyment seen within a low mastery-low performance motivational climate. This specific result from the current study demonstrates that with a large sample size, there is a

strong chance that a coaching mastery motivational climate would have demonstrated significance in its relationship with enjoyment.

The only statistically significant result that came out of either linear regression was the relationship between team captain mastery motivational climates and enjoyment. The team captain mastery motivational climates were the one factor that significantly predicted enjoyment in the athletes involved in the current study. In particular, team captains that placed the greatest emphasis on effort and working on sport-specific skills that lead to higher mastery being displayed showed the most significant role in predicting enjoyment of sport participation (account for 22.1% of enjoyment). This was an important finding due to the pure lack of research involving team captains in the past. It provides a direction for future research to build off of, especially research that can examine team captain motivational climate relationships with larger sample sizes and a more diverse group of athletes across a more extensive group of sports.

Coming into this study, it was not known what to expect in regard to the motivational climate fostered by team captains. There has not been research to this date on team captains, so there were no reference points as was the case with coach and peer-created motivational climates, as well as self-confidence and enjoyment in relation with motivational climates. That being said, team captains are expected to be the leaders of the team and the next point of contact after a coach for playing an influential role within the team. Team captains are expected to communicate with the team on a daily basis, highlighting the expectations that they have for the team. They can often have an influence on the manner in which the rest of the team behaves. Based on these “expectations” that we hear from society on what a team captain should be, it is not a surprise necessarily that team captains play such a significant role on enjoyment through the motivational climate that they create. This significant finding on a small-scale

research study opens the door for more research at a much larger-scale to be worked on in the future.

### **Limitations**

There were several limitations to the current research that possibly held back further additional significant results from being achieved. One major limitation was the overall sample size that was obtained for the study. Using a sample of only 95 athletes (50 college & 45 high school) potentially limited the opportunities to achieve more significant results from this research. For example, the relationship between coach-created mastery motivational climates and enjoyment was approaching statistical significance, which might have been achieved with a larger sample size. The primary way to fix this problem would have been to seek out additional athletes for participation from high schools or colleges in the primary research region.

Another limitation with this study involved conducting the research in the Western New York region of the United States. In this part of the country, there is a significantly larger white demographic makeup in terms of race and ethnicity compared to African American, Hispanic, and other racial/ethnic groups. There is the potential that this limited the results of the study because it would be expected to get similar results from the majority of participants based on having the same demographics and growing up in similar backgrounds. It would have been beneficial to expand research to include a more diverse group of athletes. As a whole, this would have provided a more holistic picture of what athletics is across the United States at the high school and college levels. The current research provided a picture for a very limited region of the United States.

A third limitation was the lack of widespread involvement from all sports involved. The majority of the athletes from this study participated in either track & field or lacrosse. Sports like baseball, softball, tennis, and golf were represented by a much lower amount of athletes. There is the potential that having so many athletes from within the same sport, which you would assume to have the same motivational climate, would continue to produce similar findings. If possible, it would have been ideal to get a larger representation from the other sports to balance out the results to a certain extent. The results might have been different with more participation from other sports because it would have provided a greater picture of the motivation climate impact within the sample of athletes.

The last limitation worth mentioning is the lack of an official scale for looking at the motivational climate created by team captains. Due to the large absence of research involving team captains, a scale for studying this group's involvement in athletics has never been established. For the purpose of this study, a temporary scale was created with questions adapted from the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2). It would have been ideal to work with an officially created team captain questionnaire that has been used with research in the past to prove its reliability and validity. Until then, this was an aspect of the study that could not be improved and had to be worked with to provide results.

### **Future Research**

One area that should be considered for future research involves team captain motivational climates. The only statistically significant result that came out of the current study involved the relationship between mastery team captain motivational climates and enjoyment of sport participation. This significant result was discovered with a small sample size, so it would be beneficial to try to replicate and expand upon these results with a larger, more demographically

diverse sample of athletes. This is the first research involving team captains that I am aware of, so it is going to be necessary to perform much more research before any widespread significant conclusions can be drawn in regard to team captain motivational climates. Overall, it would be worth researching whether team captain motivational climates can have an impact on other factors beyond trait self-confidence and enjoyment, such as overall performance, commitment to athletic participation, and effort levels during sport participation.

Another area that would be interesting to cover would involve a possible gender difference in regard to the factors considered within this research. The athlete gender makeup in this study was primarily female. It would be interesting to conduct further research with the sample changed. There is the possibility that different results would be obtained with a primarily male sample of athletes, or at least a more balanced sample of athletes in terms of gender. There is always the chance that male athletes would come to prefer more performance-based motivational climates at the high school and college athletic level compared to female athletes, but only future research in this area would provide a clearer picture of a gender's role in this field of interest.

## **Conclusion**

Regardless of the limitations, significant findings came out of the current research. The most significant finding might have come from the team captain motivational climate area of the study. This research provides the first finding of this nature that I am aware of, especially in regard to statistically significant findings. The fact that based on the results, the athletes in this sample prefer team captains that promote effort and mastery of skills, shows that the motivational climate of team captains is worth taking a further look at. Past research has established the importance already of coach and peer motivational climates in regard to a

multitude of factors like effort, performance, commitment. This was not the perfect research that could have been conducted, but it provides a direction for more extensive research in the future.

It is now known that a more specialized area of research should be considered, mastery and performance-based team captain motivational climates.



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